Project Baseline Summary Report

Data Source: **EM CDB** Report Number: **GEN-01b**

Operations/Field Office: **Idaho** Print Date: **3/10/2000**

Site Summary Level: **Idaho National Engineering and Environmental Laboratory** HQ ID: **0212**

Project **ID-OIM-108 / INEEL Road Rehabilitation**

General Project Information

Project Description Narratives

Purpose, Scope, and Technical Approach:

This project is an FY 98 LICP which is necessary as a safety & health project to provide safe transportation for waste movements. The INEEL has over 87 miles of paved roads within its 890 square mile boundary. In addition to this primary transportation network, over 100 miles of unpaved service roads allow access to remote areas for security, environmental experiments and sampling, maintenance activities, and emergency vehicles. Road construction projects are part of a continuing program to preserve/extend the useful life and upgrade the INEEL transportation infrastructure. This project is necessary to provide for safe and effective programmatic support. During the 1980's, the INEEL received sufficient funding to sustain the road program; however, no significant projects have been completed since 1990.

This project is necessary to continue to provide support for all present and future INEEL activities. It supports DOE's mission to provide safe and environmentally compliant transportation routes for waste shipments in support of the Idaho Settlement Agreement and transportation of soil borrow to meet various INEEL regulatory and compliance issues under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), Resource Conservation and Recovery Act (RCRA), and other authorities. The project directly supports the Sitewide specific planning goal of providing roads which meet the State of Idaho Highway Construction Specifications, American Association of State Highway and Transportation Officials (AASHTO) requirements, Department of Transportation (DOT) standards for shipping waste, and the INEEL Architectural Engineering standards.
This project provides for the design, procurement, and rehabilitation of approximately 45 miles of badly deteriorated existing paved roadways, which are currently inadequate to support waste movements and approximately 27,000 square yards of deteriorated parking areas within the INEEL. The rehabilitation actions include the redesign of intersections, widening of roadways, modification of drainage patterns, resloping of shoulders, and reconstruction and renovation of existing roadways and parking lots. The following methods of reconstruction and renovation will be utilized according to the degree of deterioration:

a. Excavation and reconstruction of the roadway from the base up through the paved surface.
b. Base repairs on sections of roadways where base deterioration has occurred and application of an asphalt overlay.
c. Application of an asphalt overlay to the roadway.
d. Application of an open graded plant mix seal coat.
e. Application of a seal coat, including crack repair.

The INEEL uses the U.S. Army Corps Of Engineers computerized pavement management system, "PAVER", to assess the condition of the paved roadway network. This information will be used in conjunction with the transportation routes addressed above to determine priorities and rehabilitation efforts.

All DOE facilities are designed and constructed in accordance with applicable Public Laws, Executive Orders, OMB Circulars, Federal Property Management Regulations, and DOE Orders. The total estimated cost of the project includes the cost of measures necessary to assure compliance with Executive Order 12088, "Federal Compliance with Pollution Control Standards"; section 19 of the Occupational Safety and Health Act of 1970, the provisions of Executive Order 12196, and the related Safety and Health provisions for Federal Employees (CFR Title 29, Chapter XVII, Part 1960); and the Architectural Barriers Act, Public Law 90-480, and implementing instruction in 41 CFR 101-19.6. The project will be located in an area not

Project Description Narratives

subject to flooding determined in accordance with Executive Order 11988.

The Department of Energy Idaho Operations Office (DOE-ID) shall be responsible for implementation of the project, including selection of principal contractors and approval of specified procurement actions. DOE-ID project management shall be performed by Construction Management, Office of Program Execution and Office of Infrastructure Management. DOE-ID administrative and other project support functions shall be furnished to the project by the DOE-ID functional organization.

Lockheed Martin Idaho Technologies Company (LMITCO) shall be the operating contractor responsible for the development of the project`s technical requirements, completion of the Architectural and Engineering Design, review and management of the engineering and construction activities, procurement of selected equipment, construction subcontracting, checkout of systems, and maintenance (not funded by this project) of the completed project. LMITCO project management and construction management shall be performed by the Site Services Organization as required to complete the project in a timely, safe, and cost effective manner. Administrative and other support functions shall be furnished to the project on a matrix basis by the LMITCO functional organizations.

Project Status in FY 2006:

Construction is scheduled to be complete the 1st quarter FY 2001, all close-out activities are scheduled to be completed in FY 2001.

Post-2006 Project Scope:

None. (Annual road maintenance will be completed under the direction of site-wide operations.)

Project End State

The INEEL Road Rehabilitation project will provide a fully compliant roadway system for the areas included in this project in order to meet INEEL program mission needs.

Cost Baseline Comments:

The costs are based upon activity based costs and standard industry accepted estimating basis. Project Cost estimates are developed at each phase of the project per the INEEL Cost Estimating Guide. These phases are identified as (1) Conceptual Design, (2) Title II Design; and (3) Approved for Construction (AFC). These estimates may change through time as a part of the normal design evolution, further definition of requirements needed to support the existing mission and project uncertainties based on items such as the stage of design complexity (e.g., conceptual versus AFC), award prices, approved baseline plans, and subsequent changes. At each project phase, a contingency analysis is performed on each estimate to determine the appropriate level of contingency required to perform the project. Cost estimates are prepared to encompass all scope required to ensure this project supports compliance with the FFACO and the Idaho Settlement Agreement.

The INEEL Road Rehabilitation Project Baseline Summary (PBS) does not reflect the changes to the fixed asset acquisition appropriation methodology where outyear requests are to be approximated in FY 1998 or the new LICP project start year. The PBS does reflect the funding in the required year as planned.

Safety & Health Hazards:

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The principle hazards associated with this project are standard industrial hazards and construction. The roadway network on the INEEL is used by INEEL workers, private construction subcontractors, radioactive cask transporters, and the public. As the roadways continue to deteriorate they will pose an increasingly greater safety risk to the workers and the public. Construction inherently: generates dust; poses risks to the INEEL workers and the public by increased noise exposure; poses risks to the environment by soil disturbances, solid waste disposal, and air emissions. A safety evaluation has been performed on this project (as required by C-DOE Order 5481.1B, Chapter II and C-DOE-ID Notice 420.A, attachment I); the evaluation states that the project does not require a hazard classification or safety analysis report. Hazards and injuries to operating personnel on the site will be minimized by following the requirements outlined in the LMITCO Safety Manual, LMITCO Conduct of Operations Manual, and by using approved procedures for all process operations. Training will be conducted as specified in the LMITCO Safety Manual.

Safety & Health Work Performance:

Safety is mitigated through the incorporation of safety codes and standards in the project design,; i.e., ANSI, NFPA, NEC, etc.. Representatives from S&H were involved in the review of the design package to assure adequate controls were included in the construction package. Construction subcontractors are required to submit a project safety plan for review and approval prior to start of construction. Construction contracts require daily Plan of the Day meetings and safety oversight. In addition weekly industrial safety oversight and assessments are required. A Facility Acceptance Review committee will be established which will include representation from occupational and industrial safety, maintenance, project, and program organizations. The committee will define any preventative maintenance procedures, operations procedures, and training requirements; verify all safety concerns have been corrected; and conduct a facility inspection to verify readiness prior to the project utilization.

The assumed cost is $99,000 per safety FTE for every Safety and Health functional category.

PBS Comments:

N/A

Baseline Validation Narrative:

The INEEL EM Integration Board (joint senior level DOE-ID and LMITCO management) provided an independent validation of the Project Baseline Summary in respect to "compliance driven" activities, project planning, and cost estimates beginning in Fiscal Year (FY) 1997 through FY 2002. Scope, schedule, cost estimates, and basis of the estimates (including resource requirements) were reviewed and validated by a team consisting of six members.

FY 1998 planning had an additional independent validation by a joint DOE-ID and LMITCO review team. Programmatic objectives, scope of work, milestones, baseline schedule, and baseline costs were analyzed. In addition, the planned scope was reviewed to ensure: (a) consistency with achieving compliance with consent orders, laws, and interagency agreements and (b) addressing safety and health and regulatory requirements.

This project was validated by DOE-ID in April 1996, 1997, and 1998 by the annual construction project validation process. This validation process evaluates the project for readiness to proceed into the Department`s budget process, and examines the planning, development, and baseline of the project to ensure that the funds requested are commensurate with the project`s anticipated scope and schedule.

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General PBS Information

Project Validated? Yes **Date Validated:** 4/22/1998

Has Headquarters reviewed and approved project? No

Date Project was Added: 12/1/1997

Baseline Submission Date:

FEDPLAN Project? Yes

Drivers:

CERCLA	RCRA	DNFSB	AEA	UMTRCA	State	DOE Orders	Other
Y	Y	N	N	N	Y	Y	Y

Project Identification Information

DOE Project Manager: Wayne B. Shigley

DOE Project Manager Phone Number: 208-526-1986

DOE Project Manager Fax Number: 208-526-9150

DOE Project Manager e-mail address: shiglewb@inel.gov

Is this a High Visibility Project (Y/N):

Planning Section

Baseline Costs (in thousands of dollars)

	1997-2006 Total	2007-2070 Total	1997-2070 Total	1997	Actual 1997	1998	Actual 1998	1999	2000	2001	2002	2003	2004	2005	2006
PBS Baseline (current year dollars)	11,400	0	11,400			600	265	8,084	2,716	0	0	0	0	0	0
PBS Baseline (constant 1999 dollars)	11,329	0	11,329			600	265	8,084	2,645	0	0	0	0	0	0
PBS EM Baseline (current year dollars)	11,400	0	11,400			600	265	8,084	2,716	0	0	0	0	0	0
PBS EM Baseline (constant 1999	11,329	0	11,329			600	265	8,084	2,645	0	0	0	0	0	0

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Baseline Costs (in thousands of dollars)

	1997-2006 Total	2007-2070 Total	1997-2070 Total	1997	Actual 1997	1998	Actual 1998	1999	2000	2001	2002	2003	2004	2005	2006
dollars)															
	2007	**2008**	**2009**	**2010**	**2011-2015**	**2016-2020**	**2021-2025**	**2026-2030**	**2031-2035**	**2036-2040**	**2041-2045**	**2046-2050**	**2051-2055**	**2056-2060**	**2061-2065**	**2066-2070**
PBS Baseline (current year dollars)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PBS Baseline (constant 1999 dollars)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PBS EM Baseline (current year dollars)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PBS EM Baseline (constant 1999 dollars)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Baseline Escalation Rates

1997	**1998**	**1999**	**2000**	**2001**	**2002**	**2003**	**2004**	**2005**	**2006**	**2007**	**2008**	**2009**
	0.00%	0.00%	2.70%	2.10%	2.10%	2.10%	2.10%	2.10%	2.10%	2.10%	2.10%	2.10%

2010	**2011-2015**	**2016-2020**	**2021-2025**	**2026-2030**	**2031-2035**	**2036-2040**	**2041-2045**	**2046-2050**	**2051-2055**	**2056-2060**	**2061-2065**	**2066-2070**
2.10%	2.10%	2.10%	2.10%	2.10%	2.10%	2.10%	2.10%	2.10%	2.10%	2.10%	2.10%	2.10%

Project Reconciliation

Project Completion Date Changes:

Previously Projected End Date of Project: 6/1/2001

Current Projected End Date of Project: 6/29/2001

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Project Reconciliation

Explanation of Project Completion Date Difference (if applicable):

The end date of this LICP has not changed from June 29, 2001. The TPC of this LICP has not changed.

Project Cost Estimates (in thousands of dollars)

Previously Estimated Lifecycle Cost (1997 - 2070, 1998 Dollars):	11,046	**Actual 1997 Cost:**	**Actual 1998 Cost:** 265
Previously Estimated Lifecycle Cost of Project (1999 - 2070, 1998 Dollars):	10,781	**Inflation Adjustment (2.7% to convert 1998 to 1999 dollars):**	291
Previously Estimated Lifecycle Cost (1999 - 2070, 1999 Dollars):	11,072		

Project Cost Changes

	Cost Adjustments	Reconciliation Narratives
Cost Change Due to Scope Deletions (-):		
Cost Reductions Due to Efficiencies (-):		
Cost Associated with New Scope (+):		
Cost Growth Associated with Scope Previously Reported (+):		
Cost Reductions Due to Science & Technology Efficiencies (-):		
Subtotal:	11,072	
Additional Amount to Reconcile (+):	-343	The TPC of this LICP has not changed.
Current Estimated Lifecycle Cost (1999 - 2070, 1999 Dollars):	**10,729**	

Milestones

Milestone/Activity	Field Milestone Code	Original Date	Baseline Date	Legal Date	Forecast Date	Actual Date	EA	DNFSB	Mgmt. Commit.	Key Decision	Intersite
Project Mission Complete	ID-OIM-08-02		6/29/2001								
Project Start	ID-OIM-08-01		3/31/1998								
Complete Construction	ID-OIM-08-03		12/28/2000								

Milestones - Part II

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Milestone/Activity	Field Milestone Code	Critical Decision	Critial Closure Path	Project Start	Project End	Mission Complete	Tech Risk	Work Scope Risk	Intersite Risk	Cancelled	Milestone Description
Project Mission Complete	ID-OIM-08-02				Y	Y					
Project Start	ID-OIM-08-01			Y							
Complete Construction	ID-OIM-08-03										